

Safety Attribute Inspection (SAI) Data Collection Tool
1.3.11 Continuous Analysis and Surveillance System (CASS) (AW)
Revision#:3 Revision Date:09/15/2009

ELEMENT SUMMARY INFORMATION

Scope of Element:

Purpose (operator's responsibility): Establish and maintain a system for the Continuing Analysis and Surveillance (CASS) of the performance and effectiveness of the inspection program, the program covering other maintenance, preventive maintenance and alterations, and for the correction of any deficiency in those programs, regardless of whether programs are carried out by the certificate holder or by another person (maintenance provider).

Objective (FAA oversight responsibility): To determine if the operator's CASS:

- Meets all applicable requirements of Title 14 of the Code of the Federal Regulations (14 CFR) and FAA policies,
- Incorporates the safety attributes, and
- Identifies any shortfalls in the operator's CASS.

Specific Instructions:

Intentionally left blank

SUPPLEMENTAL INFORMATION

Regulatory Requirements:

121.135, Manual contents
121.373, Continuing analysis and surveillance.

Related CFRs & FAA Policy/Guidance:

Related CFRs:

Intentionally left blank

FAA Policy/Guidance:

FAA Order 8900.1, Volume 3, Chapter 44, Section 1
AC 120-16E, Air Carrier Maintenance Programs
AC 120-59A, Air Carrier Internal Evaluation Programs
AC 120-72, Maintenance Resource Management Training
AC 120-79, Developing and Implementing a Continuous Analysis and Surveillance System

SAI SECTION 1 - PROCEDURES ATTRIBUTE

Objective:

The questions in this section of the SAI will help verify that the operator's documented procedures identify who, what, when, where, and how those procedures are accomplished. These procedures must allow all personnel to perform their duties and responsibilities with a high degree of safety. 14 CFR part 121.135(a)(1)

Tasks

	The inspector shall accomplish the following tasks:
1	Review the information in the Supplemental Information section of this SAI.
2	Review the duties and responsibilities for management and other personnel who accomplish the processes associated with this element.
3	Review the documentation of the processes associated with this element.

Questions

1.1	<p>Do the procedures specify how the CASS will establish and maintain the ability to perform the following functions for the inspection program:</p> <ul style="list-style-type: none"> Continually analyze program performance and effectiveness, Continually provide surveillance of program performance and effectiveness, Continually identify and correct any program deficiencies, Continually determine program corrections were appropriate, timely, and effective? <p>Note(s): <i>The procedures must also address programs that are carried out by another person (maintenance provider).</i></p> <p>Updated: Rev # 3 on 09/15/2009 SRRs: 121.135(a)(1); 121.373(a) Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.2	<p>Do the procedures specify how the CASS will establish and maintain the ability to perform the following functions for the programs covering maintenance, preventive maintenance, and alterations:</p> <ul style="list-style-type: none"> Continually analyze program performance and effectiveness, Continually provide surveillance of program performance and effectiveness, Continually identify and correct any program deficiencies, Continually determine program corrections were appropriate, timely, and effective? <p>Note(s): <i>The procedures must also address programs that are carried out by another person (maintenance provider).</i></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

	<p>Updated: Rev # 3 on 09/15/2009 SRRs: 121.373(a) Kind Of Question: Flag, Supplemental, Domestic</p>	
1.3	<p>Do the procedures specify how the following CASS functions will be performed for inspection program:</p> <ul style="list-style-type: none"> Continually analyze program performance and effectiveness, Continually provide surveillance of program performance and effectiveness, Continually identify and correct any program deficiencies, Continually determine program corrections were appropriate, timely, and effective? <p>Note(s): <i>The procedures must also address programs that are carried out by another person (maintenance provider).</i></p> <p>Updated: Rev # 3 on 09/15/2009 SRRs: 121.373(a); 121.373(b) Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.4	<p>Do the procedures specify how the following CASS functions will be performed for programs covering maintenance, preventive maintenance, and alterations:</p> <ul style="list-style-type: none"> Continually analyze program performance and effectiveness, Continually provide surveillance of program performance and effectiveness, Continually identify and correct any program deficiencies, Continually determine program corrections were appropriate, timely, and effective? <p>Note(s): <i>The procedures must also address programs that are carried out by another person (maintenance provider).</i></p> <p>Updated: Rev # 3 on 09/15/2009 SRRs: 121.373(a); 121.373(b) Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.5	<p>Does the CASS specify how changes will be made to the following programs whenever the Administrator finds that either or both of the programs do not contain adequate procedures or standards to meet the requirements of 14 CFR part 121:</p> <ul style="list-style-type: none"> Inspection program, and Maintenance, preventive maintenance, and alterations, program? <p>Updated: Rev # 3 on 09/15/2009 SRRs: 121.373(b) Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

1.6	<p>Do procedures address the intent of the guidance contained in FAA Order 8900.1, Volume 3, Chapter 44, Section 1?</p> <p>Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> Not Applicable
1.7	<p>Do procedures address the intent of the guidance contained in FAA Advisory Circular AC 120-16E, Chapter 11?</p> <p>Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> Not Applicable
1.8	<p>Do procedures address the intent of the guidance contained in FAA Advisory Circular 120-79?</p> <p>Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> Not Applicable
1.9	<p>Does the manual contain policies and procedures that include the duties and responsibilities for personnel involved with this element?</p> <p>Note(s): <i>This includes personnel, in addition to those required by 14 CFR part 119, who have authority and responsibility for processes covered by this element.</i></p> <p>Updated: Rev # 3 on 09/15/2009 SRRs: 121.135(b)(2) Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.10	<p>Does the manual refer to the appropriate sections of 14 CFR, and are the procedures consistent with the appropriate 14 CFR references or operating certificate concerning this element?</p> <p>Note(s): <i>Procedures for Flag and Supplemental operations must be consistent with applicable foreign regulations as well.</i></p> <p>Updated: Rev # 3 on 09/15/2009 SRRs: 121.135(a)(4); 121.135(b)(3) Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.11	<p>Does the manual contain general policies that require compliance with the SRRs?</p> <p>Updated: Rev # 3 on 09/15/2009 SRRs: 121.135(b)(1) Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

SAI SECTION 1 - PROCEDURES ATTRIBUTE

Drop-Down Menu

1. No policy, procedures, instructions, or information specified.
2. Procedures or instructions and information do not identify who, what, when, where, how.
3. Policy, procedures, or instructions and information do not comply with CFR.
4. Policy, procedures, or instructions and information do not comply with FAA policy and guidance.
5. Policy, procedures, or instructions and information do not comply with other documentation (e.g., manufacturer's data, Jeppesen Charts, etc.).

6.	Policy, procedures, or instructions and information unclear or incomplete.
7.	Documentation quality (e.g., unreadable or illegible).
8.	Policy, procedures, or instructions and information inconsistent across certificate holder manuals (FOM - Flight Operations Manual to GMM - General Maintenance Manual, etc.).
9.	Policy, procedures, or instructions and information inconsistent across media (e.g., paper, microfiche, electronic).
10.	Resource requirements incomplete (personnel, facilities, equipment, technical data).
11.	Other.

SAI SECTION 2 - CONTROLS ATTRIBUTE

Objective:

The questions in this section of the SAI will help determine if controls (i.e. checks and restraints) are designed into the processes associated with this element to ensure policies and procedures are followed to achieve desired results.

Tasks

The inspector shall accomplish the following tasks:

- 1 Review the policies, procedures, instructions, and information to understand the controls associated with this element.

Questions

2.1	<p>Is there a control or controls in place that ensures audits are conducted to determine the performance of its inspection program and its program covering other maintenance, preventive maintenance, and alterations?</p> <p>Note(s): <i>The control should also ensure audits are conducted for programs carried out by any other maintenance provider.</i></p> <p>Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
2.2	<p>Is there a control or controls in place to ensure that aircraft equipment performance and operational data is collected to determine the effectiveness of its inspection program and its program covering other maintenance, preventive maintenance, and alterations?</p> <p>Note(s): <i>The control should also ensure data is collected from programs carried out by any other maintenance provider.</i></p> <p>Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
2.3	<p>Is there a control or controls in place to ensure that the operator analyzes all collected data to determine the performance and effectiveness of its inspection program and its program covering maintenance, preventive maintenance, and alterations, regardless of whether those programs are carried out by it or by any other maintenance provider?</p> <p>Note(s): <i>Collected data includes audits, aircraft equipment performance, and operational data that are collected for analysis as described in the operator's CASS.</i></p> <p>Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
2.4	<p>Is there a control or controls in place to ensure that corrective action plans are initiated when an analysis reveals deficiencies in the programs?</p> <p>Note(s):</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

	<p><i>Controls should ensure that a plan's timeliness is based upon the severity of the deficiencies.</i></p> <p>Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic</p>	
2.5	<p>Is there a control or controls in place to ensure that Continuing Analysis and Surveillance (CASS) meetings and their associated processes are effective in;</p> <ul style="list-style-type: none"> Identifying issues related to systems and human factors, Determining the root cause of deficiencies, Determining appropriate corrective actions? <p>Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
2.6	<p>Is there a control or controls in place to ensure that an adequate follow-up is conducted to ensure the corrective action plans were;</p> <ul style="list-style-type: none"> Appropriate, Timely, Effective? <p>Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
2.7	<p>Is there a control or controls in place to ensure that the requirements in the CASS for responding to emergency/critical situations are complied with?</p> <p>Note(s): <i>Emergency/critical situations are non-routine events such as accidents, incidents, unscheduled landings due to mechanical issues, in-flight engine/propeller separations, hard landings, lightning strikes and rejected take-offs.</i></p> <p>Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
2.8	<p>Is there a control or controls in place to ensure that the personnel who carry out the functions of the CASS are properly trained?</p> <p>Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

SAI SECTION 2 - CONTROLS ATTRIBUTE	
Drop-Down Menu	
1.	No controls specified.
2.	Documentation for the controls do not identify who, what, when, where, how.
3.	Controls incomplete.
4.	Controls could be circumvented.
5.	Controls could be unenforceable.
6.	Resource requirements incomplete (personnel, facilities, equipment, technical data).
7.	Other.

SAI SECTION 3 - PROCESS MEASUREMENT ATTRIBUTE

Objective:

Process measurements ensure the operator uses an internal evaluation function to detect, identify, and eliminate or control hazards and the associated risk. For airworthiness elements this is a required function of operator's Continuing Analysis and Surveillance System (CASS), required by 14 CFR 121.373. The director of safety and the quality assurance department often work together to accomplish this function for the operator. Negative findings could require amendments to the safety/internal evaluation program or CASS audit forms or checklists.

Tasks

	The inspector shall accomplish the following tasks:
1	Review the control questions in Section 2 of this SAI.
2	Review the operator's policies, procedures, instructions, and information to gain an understanding of the process measurements accomplished for this element

Questions

3.1	<p>Are there process measurements that evaluate whether the operator's policies, procedures, and controls are achieving the desired results?</p> <p>Note(s): <i>Inspectors should refer to the controls in section 2 of this SAI for possible process measurements for this element.</i></p> <p><i>Persons engaged in this process should have a method for identifying undesired results.</i></p> <p>Updated: Rev # 3 on 09/15/2009 SRRs: 121.373 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
3.2	<p>Do the operator's process measurements assess the performance of the processes associated with this element?</p> <p>Note(s): <i>Verify audits exist to measure this elements performance.</i></p> <p><i>Verify audits are scheduled for this element.</i></p> <p><i>Verify audits ensure everyone, including all outsource providers; comply with the operator's program, manual and all applicable regulations and statutes.</i></p> <p>Updated: Rev # 3 on 09/15/2009 SRRs: 121.373 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
3.3	<p>Does the operator's program require the documentation of process measurement results?</p> <p>Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

3.4	Does the operator's program describe how the process measurement results are used to improve the ability to achieve the desired results? Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
3.5	Does the organization that conducts the process measurements have direct access to the person with responsibility for this element? Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

SAI SECTION 3 - PROCESS MEASUREMENT ATTRIBUTE Drop-Down Menu	
1.	No process measurements specified.
2.	Documentation for the process measurements does not identify (who, what, when, where, how).
3.	Inability to identify negative findings.
4.	No provisions for implementing corrective actions.
5.	Ineffective follow-up to determine effectiveness of corrective actions.
6.	Resources requirements (personnel, facilities, equipment, technical data).
7.	Other.

SAI SECTION 4 - INTERFACES ATTRIBUTE

Objective:

Data collected in this section helps determine if the operator manages the interfaces (i.e. interactions) associated with this element. Interfaces occur in a procedure where the responsibility for accomplishing work is transferred from one person, work group, or organization to another. Procedures must be detailed enough to ensure the smooth transfer of work and information.

Tasks

	The inspector shall accomplish the following task:
1	Review interfaces associated with the processes for this element.

Questions

4.1	Where interfaces exist in this element, are the procedures written in enough detail to preclude a breakdown or discontinuity in the activity?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
	Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	

SAI SECTION 4 - INTERFACES ATTRIBUTE

Drop-Down Menu

1.	No interfaces specified.
2.	The following interfaces not identified within the certificate holder's manual system:
3.	Interfaces listed are inaccurate.
4.	Specific location of interfaces not identified within the manual system.
5.	Other

SAI SECTION 5 - MANAGEMENT RESPONSIBILITY & AUTHORITY ATTRIBUTE	
Objective: Data from questions in this section will help the determine if there is an identifiable, qualified (when required by CFR), and knowledgeable person who is: <ul style="list-style-type: none"> • Responsible for the process, • Answerable for the quality of the process, and • Has the authority to establish and modify the process. 	
Tasks	
	The inspector shall accomplish the following tasks:
1	Identify the person(s) who has overall responsibility for this element.
2	Identify the person(s) who has the authority to revise the procedures associated with this element.
3	Review the duties and responsibilities of the above person(s).
4	Review the appropriate organizational chart.

Questions		
5.1	Is an individual(s) identified who is responsible for the quality of the procedures associated with this element? Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
5.2	Is an individual(s) identified who has the authority to establish and modify the policies, procedures, instructions, and information associated with this element? Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
5.3	Are duties and responsibilities documented for those who manage the procedures associated with this element? Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
5.4	Does the operator document the procedures for delegation of authority for this element? Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

SAI SECTION 5 - MANAGEMENT RESPONSIBILITY & AUTHORITY ATTRIBUTE Drop-Down Menu	
1.	Not documented.
2.	Documentation unclear.

3.	Documentation incomplete.
4.	Other.